2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Smyth

STREAM NAME: South Fork Holston River

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O01R_SFH01A00

SEGMENT SIZE: 8.67 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Rowland Creek confluence

RIVER MILE: 98.31

LATITUDE: 36.76889 **LONGTITUDE:** -81.57528

DOWNSTREAM LIMIT:

DESCRIPTION: Grosses Creek confluence

RIVER MILE: 89.64

LATITUDE: 36.74361 **LONGTITUDE:** -81.68806

This segment of South Fork Holston River is between Rowland Creek, just east of Thomas Bridge, and Grosses Creek, at Loves Mill. The community of St. Claire Bottom lies within this segment of the river. Route 650 parallels this segment.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Unknown

There are both ambient water quality and biological monitoring stations at 6CSFH097.42. The biologist rate this site as a moderately impaired station. There were 5 of 42 fecal violations at this ambient station.

IMPAIRMENT SOURCE Unknown

The sources are unknown

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Smyth

STREAM NAME: Middle Fork Holston River

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O03R_MFH01A00, _MFH02A00

SEGMENT SIZE: 10.4 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2008 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Snavely Branch confluence

RIVER MILE: 50.83

LATITUDE: 36.87528 **LONGTITUDE:** -81.40417

DOWNSTREAM LIMIT:

DESCRIPTION: Hungry Mother Creek confluence

RIVER MILE: 40.43

LATITUDE: 36.82667 **LONGTITUDE:** -81.54222

This Middle Fork Holston River segment is defined upstream by its confluence with Snavely Branch and downstream by confluence with Hungry Mother Creek in Marion. This segment is in Smyth County and is very close to the headwaters of Middle Fork Holston River. This segment is parallel to Route 11.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

An ambient monitoring station, 6CMFH045.72, has 5 of 41 samples exceeding the fecal coliform standard.

IMPAIRMENT SOURCE NPS - Agriculture

There are agricultural land uses in this reach.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Smyth

STREAM NAME: Middle Fork Holston River

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O03R_MFH04A98

SEGMENT SIZE: 4.15 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Dutton Branch confluence

RIVER MILE: 54.98

LATITUDE: 36.88944 **LONGTITUDE:** -81.34639

DOWNSTREAM LIMIT:

DESCRIPTION: Snaveley Branch confluence

RIVER MILE: 50.83

LATITUDE: 36.87472 **LONGTITUDE:** -81.40417

This Middle Fork Holston River segment is defined upstream by its confluence with Dutton Branch in Groseclose and downstream by the mainstem confluence with Snaveley Branch. This segment is in Smyth County and is very close to the headwaters of Middle Fork Holston River. This segment is parallel to Route 11.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

An ambient monitoring station, 6CMFH053.36, has 8 of 43 samples exceeding the fecal coliform standard.

IMPAIRMENT SOURCE NPS - Agriculture/Urban

Increasing development at the Interstate exit in this reach may be the source of the fecal coliform violations. There is also agricultural land uses in this reach. This site was listed in Part 4 on the 1998-303(d) Report .

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Smyth

STREAM NAME: Middle Fork Holston River

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O04R_MFH01A00

SEGMENT SIZE: 12.48 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2004 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Hungry Mother Creek confluence

RIVER MILE: 40.43

LATITUDE: 36.82639 **LONGTITUDE:** -81.54250

DOWNSTREAM LIMIT:

DESCRIPTION: Sulphur Spring Creek confluence

RIVER MILE: 27.95

LATITUDE: 36.79444 **LONGTITUDE:** -81.68500

The entire mainstem of Middle Fork Holston River in this watershed is part of the segment. It extends from Hungry Mother Creek confluence to Sulphur Spring Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The ambient monitoring station, 6CMFH033.40, has fecal violations. A special study station, 6CMFH033.40, had PCB and Aldrin concentrations in fish tissue above the human health screening values. Biological monitoring station, 6CMFH032.39, was not impaired.

IMPAIRMENT SOURCE NPS - Agriculture

The source for fecal coliform violations is probably agriculture. This area is in a wide flood plain with agricultural land use activities predominating. It is recommended that at second study be undertaken to determine the extent and source of these pollutants. The threatened pollutant sources is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Washington

STREAM NAME: Middle Fork Holston River

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O05R_MFH03A00

SEGMENT SIZE: 6.87 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2008 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Byers Creek confluence

RIVER MILE: 17.03

LATITUDE: 36.74083 **LONGTITUDE:** -81.80139

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream of Neff to PWS

RIVER MILE: 10.16

LATITUDE: 36.70194 **LONGTITUDE:** -81.86056

Middle Fork Holston River from Byers Creek confluence downstream to rivermile 10.03 is part of this segment. This includes Mock Mill and Neff communities.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

A biological monitoring station, 6CMFH011.31 is rated moderately impaired. An ambient station at 6CMFH013.21 has 6 of 56 fecal coliform violations.

IMPAIRMENT SOURCE Unknown, NPS - Agriculture

The source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Washington

STREAM NAME: Cedar Creek

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O05R_CED01A94,
FCF01A03,CWF01A03

SEGMENT SIZE: 9.98 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 1999 - 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 5.24

LATITUDE: 36.76667 **LONGTITUDE:** -81.86444

DOWNSTREAM LIMIT:

DESCRIPTION: Middle Fork Holston confluence

RIVER MILE: 0.00

LATITUDE: 36.71444 **LONGTITUDE:** -81.83083

The segment includes the mainstem of the stream from its headwaters to the confluence with Middle Fork Holston River as well as Right Fork and Left Fork of Cedar Creek. Cedar Creek flows through Meadowview.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

This stream was originally listed in 1994, based on a special study by Mt. Rogers Planning District Commission published in 1991, where both fecal coliform violations were noted and benthic impairments were listed based on best professional judgement. A special study in 1997 confirmed violations of the fecal coliform standard. More recent data from Tennessee Valley Authority at biological station, 2099, indicates the benthics are fair. In 2000, DEQ attempted to change the benthic assessment to threatened, however, EPA did not approve the change in benthic status. A contract for benthic TMDL development has been awarded to TetraTech. The benthic TMDL report is scheduled for EPA submittal in 2004.

IMPAIRMENT SOURCE NPS - Urban, NPS - Agriculture

DCR contracted for a fecal coliform TMDL which has been submitted and approved by EPA. A fecal coliform implementation plan has also been prepared and funding is in place for reductions of septic tank inputs and agricultural runoff. Sources for Benthic impairments will be delineated during the Benthic TMDL Study to be performed by TetraTech.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Washington

STREAM NAME: Byers Creek

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O05R_BYS01A94

SEGMENT SIZE: 0.87 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 1999 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Hall Creek confluence

RIVER MILE: 0.87

LATITUDE: 36.74083 **LONGTITUDE:** -81.80139

DOWNSTREAM LIMIT:

DESCRIPTION: Middle Fork Holston confluence

RIVER MILE: 0.00

LATITUDE: 36.73694 **LONGTITUDE:** -81.79500

Byers Creek originates at a bend in Hall Creek. It actually appears to be a continuation of Hall Creek and extends for approximately 2 miles before it flows into Middle Fork Holston River. The entire length of the segment and tributaries are included.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

A special study in 1997 indicated that the fecal coliform standard is violated. The stream has been listed on 303 (d) reports since 1994 for fecal coliform violations and benthic impairment based on a special study by Mt. Rogers Planning District Commission published in 1991. A fecal coliform TMDL study was submitted and approved by EPA in 2001. A contract for benthic TMDL development has been awarded to TetraTech. The benthic TMDL report is scheduled for EPA submittal in 2004.

IMPAIRMENT SOURCE NPS - Agriculture, NPS - Agriculture

DCR contracted for a fecal coliform TMDL which has been submitted and approved by EPA. A fecal coliform implementation plan has also been prepared and funding is in place for reductions of septic tank inputs and agricultural runoff. Sources for Benthic impairments will be delineated during the Benthic TMDL Study to be performed by TetraTech.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Washington

STREAM NAME: Hall Creek

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O05R_HAL01A94,T
AT01A02,XGC01A02

SEGMENT SIZE: 10.85 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 1999 - 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 5.87

LATITUDE: 36.79611 **LONGTITUDE:** -81.82889

DOWNSTREAM LIMIT:

DESCRIPTION: Byers Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.74083 **LONGTITUDE:** -81.80139

Hall Creek flows through Emory and confluences with Byers Creek. The TMDL segment includes its entire length from headwaters to its mouth as well as all tributaries.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

A fecal coliform TMDL study was submitted and approved by EPA in 2001. An earlier, 1991, study performed through the Planning District Commission led to its initial listing in the 303 (d) report. Subsequent biological monitoring by Tennessee Valley Authority on Byers Creek, just downstream of this segment, indicated benthics were fair. EPA would not accept this information to delist the segment for benthics due to differences in TVA and DEQ sampling/analysis protocol. A contract for benthic TMDL development has been awarded to TetraTech. The benthic TMDL report is scheduled for EPA submittal in 2004.

IMPAIRMENT SOURCE NPS - Agriculture, NPS - Agriculture

DCR contracted for a fecal coliform TMDL which has been submitted and approved by EPA. A fecal coliform implementation plan has also been prepared and funding is in place for reductions of septic tank inputs and agricultural runoff. Sources for Benthic impairments will be delineated during the Benthic TMDL Study to be performed by TetraTech.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Washington

STREAM NAME: Hutton Creek

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O05R_HTO01A94, PLU01A02,YCD01A02

SEGMENT SIZE: 10.89 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 1999 - 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 4.79

LATITUDE: 36.81722 **LONGTITUDE:** -81.77639

DOWNSTREAM LIMIT:

DESCRIPTION: Middle Fork Holston conflluence

RIVER MILE: 0.00

LATITUDE: 36.77000 **LONGTITUDE:** -81.73194

Hutton Creek, from its headwaters to its confluence with Middle Fork Holston River, has been designated a TMDL segment. Plum Creek, and other tributaries to Hutton Creek are also included in this TMDL designation.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

This segment has been listed since 1994 for violating fecal coliform standards and benthic impairment. It was listed for fecal coliform violations based on a Planning District Commission study published in 1991. Benthic impairments were documented by TVA in this study as well and also noted on the 303 (d) list. A fecal coliform TMDL report was submitted and approved by EPA in 2001. A contract for benthic TMDL development has been awarded to TetraTech. The benthic TMDL report is scheduled for EPA submittal in 2004.

IMPAIRMENT SOURCE NPS - Agriculture, NPS - Agriculture

DCR contracted for a fecal coliform TMDL which has been submitted and approved by EPA. A fecal coliform implementation plan has also been prepared and funding is in place for reductions of septic tank inputs and agricultural runoff. Sources for Benthic impairments will be delineated during the Benthic TMDL Study to be performed by TetraTech.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Washington

STREAM NAME: Middle Fork Holston River

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O05R_MFH04A00

SEGMENT SIZE: 10.12 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Sulfur Springs Creek confluence

RIVER MILE: 27.15

LATITUDE: 36.79444 **LONGTITUDE:** -81.68500

DOWNSTREAM LIMIT:

DESCRIPTION: Byers Creek confluence

RIVER MILE: 17.03

LATITUDE: 36.73694 **LONGTITUDE:** -81.79500

Middle Fork Holston River from Sulphur Spring Creek downstream to Byers Creek confluence. The segment begins west of Chilhowie near Route 107 and crosses the county line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

An ambient station at 6CMFH026.00 has 12 of 42 fecal coliform violations.

IMPAIRMENT SOURCE Chilhowie STP, NPS - Agriculture

Town of Chilhowie STP is directly above this segment and may be a contributing source to the violations. The plant was upgraded, increasing the flow and improving fecal coliform controls. It began operation in July 2001. While the plant was being upgraded, upsets were observed. The fecal coliform source may also be due to agriculture land uses.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Washington

STREAM NAME: Wolf Creek

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O06R_WLF01A98

SEGMENT SIZE: 7.8 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Town Creek confluence

RIVER MILE: 8.77

LATITUDE: 36.68583 **LONGTITUDE:** -81.98083

DOWNSTREAM LIMIT:

DESCRIPTION: Headwaters South Holston Lake

RIVER MILE: 0.97

LATITUDE: 36.62639 **LONGTITUDE:** -81.98306

The segment extends from the confluence with Town Creek, just south of Abingdon, to the headwaters of South Holston Lake.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological sampling in this reach, 6CWLF004.10 is moderately impaired. At a 1997 special study station, 6CWLF006.55, PCB was found in fish tissue to exceed the human health screening value.

IMPAIRMENT SOURCE NPS - Agriculture/Urban

The source of benthic impairment may be agricultural and urban nonpoint sources. The source of PCB's are unknown. Phosphate exceedences may be due to agriculture and urban nonpoint source runoff as well.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Washington, Bristol, City of

STREAM NAME: Beaver Creek

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O07R_BEV01A94, BEV02A04

SEGMENT SIZE: 13.46 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Route 611 Bridge

RIVER MILE: 28.73

LATITUDE: 36.70917 **LONGTITUDE:** -82.04500

DOWNSTREAM LIMIT:

DESCRIPTION: Tennessee State line

RIVER MILE: 15.27

LATITUDE: 36.59472 **LONGTITUDE:** -82.18583

The segment extends from the Route 611 bridge near the headwaters of Beaver Creek to the state line. Beaver Creek flows through the City of Bristol. Milage changes from 1998 list are due to NHD corrections as to the location of the upstream point.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

Chemical data is available from ambient stations, 6CBEV021.07 and 6CBEV015.27, with fecal violations. Tennessee Department of Natural Resource data also shows fecal violations. Biological stations, 6CBEV023.99 and 6CBEV024.60, show benthic impacts. Sediment analysis at 6CBEV015.27 indicates that lead exceeds the ER-M guideline value. However, the station at 6CBEV021.07 does not have a lead exceedence. More study is needed to determine extents to benthic impairment.

IMPAIRMENT SOURCE NPS - Urban, NPS - Agriculture

Beaver Creek flows through an intense agricultural area as well as being an urban stream as it crosses the state line. Both of these land uses contribute to water quality impacts. DCR ranks the watershed high for overall nonpoint source potential impacts.
Projects implementing best management practices have been funded and continue to be pursued to address agricultural impacts.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Washington, Bristol, City of

STREAM NAME: Little Creek

HYDROLOGIC UNIT: 06010102

SEGMENT ID.: VAS-O07R_LTL01A96

SEGMENT SIZE: 4.81 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2002

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 5.78

LATITUDE: 36.64750 **LONGTITUDE:** -82.20028

DOWNSTREAM LIMIT:

DESCRIPTION: Tennessee State line

RIVER MILE: 0.26

LATITUDE: 36.59500 **LONGTITUDE:** -82.19028

Little Creek segment consists of the mainstem from its headwaters to the Tennessee State Line. The creek flows through Bristol, Virginia. The milage reduction is based on NHD data layer.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Fecal coliform data from Tennessee indicate that the stream violates the water quality standard.

IMPAIRMENT SOURCE NPS - Agriculture/Urban

The source is unknown, however the watershed has a high ranking for urban impacts. It is suspected that fecal violations are a combination of urban and agricultural impacts of nonpoint sources.

This stream is continuing to be monitored as part of a Boone Watershed Partnership special study. The goal is to acquire enough data to characterize Boone Lake water quality using a model developed by TVA. East Tennessee State University is cooperating/contracting to sample and analyze stream samples.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Smyth, Bland

STREAM NAME: Lick Creek

HYDROLOGIC UNIT: 06010101

SEGMENT ID.: VAS-O09R_LIB01A02

SEGMENT SIZE: 5.63 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Lynn Camp Creek confluence

RIVER MILE: 5.63

LATITUDE: 36.98944 **LONGTITUDE:** -81.43417

DOWNSTREAM LIMIT:

DESCRIPTION: North Fork Holston River confluence

RIVER MILE: 0.00

LATITUDE: 36.96083 **LONGTITUDE:** -81.49056

Lick Creek is a tributary to North Fork Holston River. This segment extends from its confluence Lynn Camp Creek to North Fork Holston River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A biological monitoring site, 6CLIB003.64 was rated moderately impaired using RPB II protocol. This segment length has been changed from 1998 to a shorter length.

IMPAIRMENT SOURCE Unknown

This watershed has a potential for agricultural impacts as well as silvacultural impacts. The source of the benthic impacts is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Smyth

STREAM NAME: North Fork Holston River

HYDROLOGIC UNIT: 06010101

SEGMENT ID.: VAS-O09R_NFH01A98

SEGMENT SIZE: 1.8 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Crewey Branch confluence

RIVER MILE: 99.24

LATITUDE: 36.91444 **LONGTITUDE:** -81.61333

DOWNSTREAM LIMIT:

DESCRIPTION: Locust Cove Creek confluence

RIVER MILE: 97.44

LATITUDE: 36.93222 **LONGTITUDE:** -81.62861

This segment of the North Fork Holston River extends from the Crewey Branch confluence to the Locust Cove Creek confluence. Crewey Branch follows Route 631 and Locust Cove Creek is near Route 42 in Smyth County. In 1998 this segment was 5.69 miles long, however 4.18 miles falls in VAS-O10R instead of all in VAS-O09R.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Sediment analysis at an special station, 6CNFH097.67, revealed DDT value exceedence of the ER-M guideline value. This segment has TVA station 807602 and a DEQ biological monitoring station, 6CNFH098.47, which were both rated good and not impaired for aquatic life uses, respectively. In 1998, data from the biological monitoring station appeared to indicate a threat to aquatic life use. Additional monitoring has changed this assessment for 2002 to not impaired for aquatic life use. This segment is actually in two watersheds.

IMPAIRMENT SOURCE Unknown

The landuse in this watershed is predominately agricultural. However the DDT source is unknown. The remaining 4.18 miles of this 1998 listed TMDL segment are included in VAS-O10R-04.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Smyth

STREAM NAME: North Fork Holston River

HYDROLOGIC UNIT: 06010101

SEGMENT ID.: VAS-O10R_NFH01A94

SEGMENT SIZE: 1.84 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: Saltville above Olin Matheson Plant site

RIVER MILE: 85.4

LATITUDE: 36.89083 **LONGTITUDE:** -81.74944

DOWNSTREAM LIMIT:

DESCRIPTION: Robertson Branch confluence

RIVER MILE: 83.56

LATITUDE: 36.88667 **LONGTITUDE:** -81.77000

This segment of the mainstem of North Fork Holston River begins in Saltville and ends at the confluence of Robertson Branch, which is the watershed boundary. The segment brackets the closed Olin Matheson Plant.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury)

Mercury contamination of the fish tissue in North Fork Holston River prior to 1972 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R. A sediment sample at 6CNFH097.67 had DDT.

IMPAIRMENT SOURCE Olin Matheson Plant Site

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff at the site.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Smyth

STREAM NAME: North Fork Holston River

HYDROLOGIC UNIT: 06010101

SEGMENT ID.: VAS-O10R_NFH03A98

SEGMENT SIZE: 4.18 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Locust Cove Creek confluence

RIVER MILE: 97.44

LATITUDE: 36.89083 **LONGTITUDE:** -81.74944

DOWNSTREAM LIMIT:

DESCRIPTION: Laurel Creek confluence

RIVER MILE: 93.26

LATITUDE: 36.88667 **LONGTITUDE:** -81.77000

This segment of the mainstem of North Fork Holston River begins at Locust Cove confluence and ends downstream at Laurel Creek. The segment is upstream of the Olin site. This is the downstream 4.18 miles of a 5.69 mile segment which was listed in 1998 as falling completely in VAS-O09R.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Sediment analysis at an special station, 6CNFH097.67, revealed DDT value exceedence of the ER-M guideline value. This segment has TVA station 807602 and a DEQ biological monitoring station, 6CNFH098.47, which were both rated good and not impaired for aquatic life uses, respectively. In 1998, data from the biological monitoring station indicate a partial impairment for aquatic life use. Additional monitoring has changed this assessment for 2002 to not impaired for aquatic life use. The station needs to be delisted.

IMPAIRMENT SOURCE Unknown

The landuse in this watershed is predominately agricultural. However the DDT source is unknown. Miles from the 1998 TMDL list included this segment and VAS-O09R-02 as well.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Smyth

STREAM NAME: Laurel Creek

HYDROLOGIC UNIT: 06010101

SEGMENT ID.: VAS-O10R_LAE01A02

SEGMENT SIZE: 9.4 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 23.74

LATITUDE: 37.02750 **LONGTITUDE:** -81.44028

DOWNSTREAM LIMIT:

DESCRIPTION: Route 16 Bridge

RIVER MILE: 14.34

LATITUDE: 37.01389 **LONGTITUDE:** -81.52806

This segment of Laurel Creek extends from headwaters to Route 16 Bridge in Tazewell County. The segment is in the Jefferson National Forest.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The biological station, 6CLAE018.29, was rated as moderately impaired.

IMPAIRMENT SOURCE Unknown

This watershed is within the Jefferson National Forest. Silvacultural activities are the predominate land use.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Washington

STREAM NAME: North Fork Holston River

HYDROLOGIC UNIT: 06010101

SEGMENT ID.: VAS-O11R_NFH01A00

SEGMENT SIZE: 1.9 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: Brumley Creek confluence

RIVER MILE: 64.13

LATITUDE: 36.79167 **LONGTITUDE:** -82.01611

DOWNSTREAM LIMIT:

DESCRIPTION: Cabin Creek confluence

RIVER MILE: 62.23

LATITUDE: 36.78250 **LONGTITUDE:** -82.03917

This segment is the mainstem of North Fork Holston River, extending from Brumley Creek to Cabin Creek, near Brumley Gap.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fish Tissue - Mercury

Mercury contamination of the fish tissue in North Fork Holston River prior to 1982 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R. This segment is also threatened due to sediments detected above the guideline values for PCP and Mercury.

IMPAIRMENT SOURCE Olin Matheson Plant Site

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff at the site. Mercury in the sediments as well as Mercury in fish tissue is a result of this plant. The PCP source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Smyth, Washington

STREAM NAME: North Fork Holston River

HYDROLOGIC UNIT: 06010101

SEGMENT ID.: VAS-O11R_NFH02A94

SEGMENT SIZE: 14.64 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: Tumbling Creek confluence

RIVER MILE: 78.77

LATITUDE: 36.86361 **LONGTITUDE:** -81.83778

DOWNSTREAM LIMIT:

DESCRIPTION: Brumley Creek confluence

RIVER MILE: 64.13

LATITUDE: 36.79167 **LONGTITUDE:** -82.01611

The mainstem of North Fork Holston River from Tumbling Creek to Brumley Creek is in this segment. This segment is included in a Fish Consumption segment which extends from Saltville to the Tennessee state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury)

Mercury contamination of the fish tissue from Olin in North Fork Holston River prior to 1982 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R.

IMPAIRMENT SOURCE Olin Matheson Plant Site, Olin

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff at the site. Mercury in the sediments as well as Mercury in fish tissue is a result of this plant.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Washington

STREAM NAME: North Fork Holston River

HYDROLOGIC UNIT: 06010101

SEGMENT ID.: VAS-O11R_NFH03A94

SEGMENT SIZE: 4.79 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: Robertson Branch confluence

RIVER MILE: 83.56

LATITUDE: 36.88667 **LONGTITUDE:** -81.77000

DOWNSTREAM LIMIT:

DESCRIPTION: Tumbling Creek confluence

RIVER MILE: 78.77

LATITUDE: 36.86361 **LONGTITUDE:** -81.83778

This segment is the mainstem of North Fork Holston River, from Robertson Branch in Saltville, to Tumbling Creek. Mileage has been decreased because of the NHD data layer.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury), General Standard (Benthic)

Mercury contamination of the fish tissue in North Fork Holston River prior to 1982 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R. The partially supporting aquatic life use designation is the result of a biological monitoring station, 6CNFH080.45, rated moderately impaired last sampled in 1993. No benthic data fell within the 2002 assessment window and thus is not listed as impaired for benthics in 2002-305b report. Aquatic life use is further threatened because the ambient water quality monitoring station, 6CNFH080.43, has mercury value exceedences in sediment samples.

IMPAIRMENT SOURCE Olin Matheson Plant Site

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff at the site. Mercury in the sediments as well as Mercury in fish tissue is a result of this source. The benthic impairment source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Washington

STREAM NAME: North Fork Holston River

HYDROLOGIC UNIT: 06010101

SEGMENT ID.: VAS-O12R_NFH01A94,_ NFH01B03_, NFH01C02

SEGMENT SIZE: 35.42 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: Cabin Creek confluence

RIVER MILE: 62.23

LATITUDE: 36.78250 **LONGTITUDE:** -82.03917

DOWNSTREAM LIMIT:

DESCRIPTION: Cove Creek confluence

RIVER MILE: 26.81

LATITUDE: 36.65278 **LONGTITUDE:** -82.38972

This segment is the mainstem of North Fork Holston River, from Cabin Creek to confluence with Abrams Creek. The segment extends the entire length of the waterbody and passes near Mongle Spring, Holston, Alum Wells, Pine Grove to Mendota. This is part of the 80.4 mile Fish Consumption segment which extends from Saltville to Tennessee State Line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury), General Standard (Sediment-Hg, PCP)

Mercury contamination of the fish tissue in North Fork Holston River prior to 1972 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O10R, VAS-O11R, and VAS-O13R. Aquatic life use is threatened due to mercury exceedences in sediments and fish consumption is not supporting due to mercury exceedences in fish tissue at station, 6CNFH039.18 (ADB ID NFH01C02). An ambient station at 6CNFH059.65 (ADB ID NFH02A00) and 6CNFH060.93 benthic station in this reach had sediment hits for Mercury and PCP.

IMPAIRMENT SOURCE Olin Matheson Plant Site, Olin

The Olin Mathiason Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff. Mercury in the sediments and fish tissue is from this plant.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Scott

STREAM NAME: North Fork Holston River

HYDROLOGIC UNIT: 06010101

SEGMENT ID.: VAS-O13R_NFH01A94

SEGMENT SIZE: 5.29 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: Big Moccasin Creek confluence

RIVER MILE: 8.29

LATITUDE: 36.60889 **LONGTITUDE:** -82.54444

DOWNSTREAM LIMIT:

DESCRIPTION: Tennessee State Line

RIVER MILE: 3.00

LATITUDE: 36.59361 **LONGTITUDE:** -82.60917

This segment is the mainstem of North Fork Holston River, from Big Moccasin Creek confluence to the Tennessee State line. This portion of North Fork Holston River is south of Weber City and parallel to Route 714.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury), Fecal Coliform

Mercury contamination of the fish tissue in North Fork Holston River prior to 1972 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R. Fecal coliform samples at an ambient station, 6CNFH008.78, exceed water quality standards in 8 of 40 samples. This results in a partially supporting assessment for swimmable use for 1998, however, 2002 assessment has 5 of 52 samples with fecal coliform violations. Only one violation of the last 24 samples in the last 2 years. It can be delisted for swimmable use. A benthic station at 6CNFH007.78 is rated moderately impaired.

IMPAIRMENT SOURCE Olin Matheson Plant Site, NPS - Urban

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff at the site. Fecal coliform violations and the benthic impairment are probably due to urban nonpoint sources.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Scott

STREAM NAME: North Fork Holston River

HYDROLOGIC UNIT: 06010101

SEGMENT ID.: VAS-O13R_NFH02A94

SEGMENT SIZE: 18.76 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: Cove Creek confluence

RIVER MILE: 26.81

LATITUDE: 36.65278 **LONGTITUDE:** -82.38944

DOWNSTREAM LIMIT:

DESCRIPTION: Big Moccasin Creek confluence

RIVER MILE: 8.05

LATITUDE: 36.60889 **LONGTITUDE:** -82.54444

This segment is the mainstem of North Fork Holston River, from Abrams Creek to Big Moccasin Creek confluence, near Gate City.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury)

Mercury contamination of the fish tissue in North Fork Holston River prior to 1972 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R.

IMPAIRMENT SOURCE Olin Matheson Plant Site

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff at the site.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Scott, Russell

STREAM NAME: Big Moccasin Creek

HYDROLOGIC UNIT: 06010101

SEGMENT ID.: VAS-O14R_BMC01A98, _BMC02A00

SEGMENT SIZE: 3.49 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Red Hill Branch confluence

RIVER MILE: 3.49

LATITUDE: 36.64278 **LONGTITUDE:** -82.56500

DOWNSTREAM LIMIT:

DESCRIPTION: North Fork Holston confluence

RIVER MILE: 0.00

LATITUDE: 36.60889 **LONGTITUDE:** -82.54444

The segment is on Big Moccasin Creek between Red Hill Branch confluence and North Fork Holston River confluence. The stream ends in Gate City.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Ambient water quality monitoring station, 6CBMC002.90, had fecal coliform violations in 3 of 21 samples. This segment was threatened on the 1998 list and is being added to the Part I TMDL list for 2002.

IMPAIRMENT SOURCE NPS - Agriculture/Urban

Agriculture and pasture are the predominant land uses in the watershed. Gate City STP discharges into this segment and has a history of permit violations.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Tazewell

STREAM NAME: Clinch River

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P01R_CLN01A98

SEGMENT SIZE: 5.5 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Lincolnshire Branch confluence

RIVER MILE: 350.60

LATITUDE: 37.13333 **LONGTITUDE:** -81.50083

DOWNSTREAM LIMIT:

DESCRIPTION: Plum Creek confluence

RIVER MILE: 345.10

LATITUDE: 37.12417 **LONGTITUDE:** -81.56750

The segment includes the mainstem of Clinch River from the Lincolnshire Branch confluence to the Plum Creek confluence. The station is at River Jack which is on Rt. 16 downstream of Tazewell. Clinch River flows through part of the Town of Tazewell.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring efforts, 6BCLN346.80, in June 1997 indicate moderate impairment. The biologist noted that aquatic habitat is impacted due to heavy siltation.

IMPAIRMENT SOURCE NPS - Urban, NPS - Agricultural

The land use upstream of this station is urban, and agricultural and are the probably sources of siltation.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Tazewell

STREAM NAME: Clinch River

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P03R_CLN01A98

SEGMENT SIZE: 3.1 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Raven Doran Raw Water Intake

RIVER MILE: 316.53

LATITUDE: 37.09083 **LONGTITUDE:** -81.82167

DOWNSTREAM LIMIT:

DESCRIPTION: Mill Creek confluence

RIVER MILE: 313.43

LATITUDE: 37.08333 **LONGTITUDE:** -81.85583

The segment extends from the Raven-Doran raw water intake, just above the Town Hill Creek confluence, to the confluence with Mill Creek at the watershed boundary. Clinch River flows through the communities of Doran and Raven.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

There were fecal coliform violations, 4 out of 38 samples, at station 6BCLN315.11. An organic exceedence in sediments at this same location results in a threatened assessment for PCP.

IMPAIRMENT SOURCE NPS - Urban

Fecal violations may be attributed to Urban Nonpoint Sources. The urban area is located directly on the floodplain. The segment is threatened for PCP in sediments. This source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Tazewell

STREAM NAME: Middle Creek

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P03R_MID01A98, MID02A98

SEGMENT SIZE: 10.01 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 11.01

LATITUDE: 37.20194 **LONGTITUDE:** -81.77250

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence

RIVER MILE: 0.00

LATITUDE: 37.08806 **LONGTITUDE:** -81.76722

Middle Creek mainstem from its headwaters to its confluence with Clinch River, just to the west of Cedar Bluff, comprises the segment. Route 67 roughly parallels Middle Creek from Richlands north. Its confluence with Clinch River occurs in Cedar Bluff in Tazewell County. The segment may be found on the Jewell Ridge and Richlands topographic maps. Middle Creek flows into Clinch River just upstream of a mussel bed. The mileage increase is a result of NHD files.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The segment is listed because a biological monitoring station, 6BMID000.20, is severely impaired. The biologist reported, in May 1996, that there was a low density of organisms in the stream.

IMPAIRMENT SOURCE Resource Extraction

The Middle Creek watershed land use is predominately coal mining related. In fact, in 1994, a spill of a cationic polymer from a coal company site resulted in a fish kill on Middle Creek.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Russell

STREAM NAME: Swords Creek

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P04R_SWO01A00

SEGMENT SIZE: 2.9 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Sulphur Spring Branch confluence

RIVER MILE: 2.90

LATITUDE: 37.07028 **LONGTITUDE:** -81.92528

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence

RIVER MILE: 0.00

LATITUDE: 37.03472 **LONGTITUDE:** -81.91694

This segment of Swords Creek begins at Route 632, at the confluence with Sulphur Spring Branch, flows through Dye, and ends at the confluence with Clinch River.

CLEAN WATER ACT GOAL AND USE SUPPORT:
Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A biological monitoring station at 6BSWD000.11 is rated moderately impaired.

IMPAIRMENT SOURCE NPS - Urban

The creek flows through populated areas so that urban nonpoint sources are suspected.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Russell

STREAM NAME: Lewis Creek

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P04R_LWS01A98

SEGMENT SIZE: 4.84 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Stone Branch confluence

RIVER MILE: 4.84

LATITUDE: 37.03667 **LONGTITUDE:** -81.97556

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence

RIVER MILE: 0.00

LATITUDE: 36.99222 **LONGTITUDE:** -81.97139

Lewis Creek, from its confluence with Stone Branch to its mouth on the Clinch River comprises the segment. The stream flows through Honaker, parallel to Route 624 and 653 to the Clinch River. The confluence with Clinch River is west of Blackford in Russell County.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A biological monitoring station, 6BLWS000.90, is moderately impaired based on the results of three Rapid Bioassessment Protocol 2 (RBP2) efforts.

IMPAIRMENT SOURCE NPS - Urban

The source of impairment is urban. Lewis Creek flows through Honaker which has dense development along the streambanks.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Tazewell

STREAM NAME: Clinch River

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P06R_BCD02A00, BCD02A02

SEGMENT SIZE: 3.89 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Lebanon Raw Water Intake

RIVER MILE: 8.10

LATITUDE: 36.90111 **LONGTITUDE:** -82.03528

DOWNSTREAM LIMIT:

DESCRIPTION: Glade Hollow confluence

RIVER MILE: 4.21

LATITUDE: 36.93611 **LONGTITUDE:** -82.06194

The segment extends from the Lebanon raw water intake to the confluence with stream from Glade Hollow. Big Cedar Creek flows through Lebanon.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The benthic station at 6BBCD004.18 is moderately impaired.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Russell

STREAM NAME: Dumps Creek

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P08R_DUM01A94

SEGMENT SIZE: 3.42 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2001 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Hurricane Fork confluence

RIVER MILE: 3.42

LATITUDE: 36.97056 **LONGTITUDE:** -82.19167

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence

RIVER MILE: 0.00

LATITUDE: 36.93472 **LONGTITUDE:** -82.19722

The Dumps Creek segment extends from the Hurricane Fork confluence to the mouth where Dumps Creek flows to Clinch River in Carbo.

CLEAN WATER ACT GOAL AND USE SUPPORT:
Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The biological monitoring stations, 6BDUM000.14 and 6BDUM001.09 are moderately impaired.

IMPAIRMENT SOURCE Resource Extraction

The area has a history of coal mining activities which contribute to aquatic habitat impacts on this segment.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Russell

STREAM NAME: Cigarette Hollow

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P10R_XBM01A98

SEGMENT SIZE: 1.08 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2006 - 2008

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 1.08

LATITUDE: 36.97361 **LONGTITUDE:** -82.26556

DOWNSTREAM LIMIT:

DESCRIPTION: Right Fork confluence

RIVER MILE: 0.00

LATITUDE: 36.97694 **LONGTITUDE:** -82.28250

The entire Cigarette Hollow stream is included. This tributary confluences with Right Fork which is a tributary to Lick Creek near Dante. Route 63 runs through the community of Dante.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

Special study data in the 1998 assessment cycle linked this stream to the problems in Lick Creek. Biological monitoring site, 6BLCC000.65, data is severely impaired and ambient station data has fecal violations, 6BLCC000.09 in Lick Creek.

IMPAIRMENT SOURCE NPS - Urban, NPS - Urban

The source of the impairment is unknown, however stream banks are intensively populated in the community of Dante. The topography offers the only flat land for urban use along the narrow stream floodplain. Another land use in this area is coal mining which may also degrade stream habitat. Fecal violations are probably attributable to the failing septic systems and straight pipes along the stream. This area is constructing collector lines and a new Wastewater Treatment Plant started up in mid-1997. In February 1999, 342 connections had been made to the new plant. This should decrease fecal coliform violations.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Russell

STREAM NAME: Lick Creek

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P10R_LCC01A98,_ LCC02A02

SEGMENT SIZE: 9.48 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2006 - 2008

UPSTREAM LIMIT:

DESCRIPTION: headwaters including Straight Hollow

RIVER MILE: 4.83

LATITUDE: 36.99222 **LONGTITUDE:** -82.26583

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence

RIVER MILE: 0.00

LATITUDE: 36.90583 **LONGTITUDE:** -82.29861

The segment includes mainstem of Lick Creek from its headwaters, including Straight Hollow tributary, to its confluence with Clinch River near St. Paul. Lick Creek flows through Dante, parallel with Route 63.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

Biological monitoring on Lick Creek, 6BLCC000.65 and 6BLCC005.99 indicates the stream is severely impaired. Station, 6BLCC004.49 is not impaired and station 6BLCC000.09 is moderately impaired for aquatic life use. The segment is assessed as severely impaired on the lower length and severely impaired on the upper reaches. Ambient water quality monitoring, 6BLCC000.09, results in violations of the fecal coliform standard. Special Study results in 1997, which included a sampling station on Straight Hollow confirm the fecal coliform violations occur in Straight Hollow and on Lick Creek mainstem.

IMPAIRMENT SOURCE NPS - Urban, NPS - Septage Disposal

The source is unknown, but urban sources are probably responsible in Dante. Resource extraction takes place here and may degrade stream habitat. Fecal violations are due to failing septic systems and straight pipes along the stream. A new Wastewater Treatment Plant started up in mid-1997. In February 1999, 342 connections had been made to the new plant. This should decrease fecal coliform violations.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Russell

STREAM NAME: Right Fork

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P10R_LCR01A98

SEGMENT SIZE: 2.91 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2006 - 2008

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 2.91

LATITUDE: 36.98944 **LONGTITUDE:** -82.25444

DOWNSTREAM LIMIT:

DESCRIPTION: Lick Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.97722 **LONGTITUDE:** -82.29750

The segment includes mainstem of Right Fork which is a tributary of Lick Creek. It was included in the TMDL list in 1998 as part of the Lick Creek watershed. It confluences with Lick Creek near the community of Dante on Route 63.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

Special study data in the 1997 on Right Fork Lick Creek showed fecal coliform violations and linked this stream to the problems in Lick Creek. Biological monitoring site, 6BLCC000.65, data is severely impaired and ambient station data has fecal violations, 6BLCC000.09 in Lick Creek.

IMPAIRMENT SOURCE NPS - Urban, NPS - Urban

The source of the benthic impairment is unknown. Floodplains are intensively populated in the community of Dante. Resource extraction in the watershed may also degrade stream habitat. Fecal violations are attributable to the raw sewage discharges from individual homes and failing septic systems along the stream. A new Wastewater Treatment Plant started up in mid-1997. Collector lines and public sewer system connections have been made to 342 homes in the upper Lick Creek drainage. The fecal violations should decrease as straight pipe discharges are corrected.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Russell

STREAM NAME: Laurel Branch

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P10R_LEL01A98

SEGMENT SIZE: 4.96 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2006 - 2008

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 4.96

LATITUDE: 36.99972 **LONGTITUDE:** -82.30861

DOWNSTREAM LIMIT:

DESCRIPTION: Lick Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.98111 **LONGTITUDE:** -82.30611

The segment includes mainstem of Laurel Branch which confluences with Lick Creek near the community of Dante. Route 63 runs through the community of Dante.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

Special study data in the 1998 assessment cycle linked this stream to the problems in Lick Creek. Biological monitoring site, 6BLCC000.65, data is severely impaired and ambient station data has fecal violations, 6BLCC000.09 in Lick Creek.

IMPAIRMENT SOURCE NPS - Urban, NPS - Urban

The source of the impairment is urban nonpoint with intensively populated floodplains in the community of Dante. Another land use in this area is coal mining which may also degrade stream habitat. Fecal violations are attributable to the raw sewage discharges from individual homes and failing septic systems along the stream. A new Wastewater Treatment Plant started up in mid-1997. Collector lines and public sewer system connections have been made to 342 homes in the upper Lick Creek drainage. The fecal violations should decrease as straight pipe discharges are corrected.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: Crab Orchard Creek

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P11R_CRA01A98

SEGMENT SIZE: 2.43 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Headwater

RIVER MILE: 2.43

LATITUDE: 36.93778 **LONGTITUDE:** -82.42167

DOWNSTREAM LIMIT:

DESCRIPTION: Guest River confluence

RIVER MILE: 0.00

LATITUDE: 36.91139 **LONGTITUDE:** -82.43611

The segment includes the entire length of Crab Orchard Creek. It flows in a southwest direction, through the community of Crab Orchard.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Samples taken by TVA in 1996 and 1997 indicate that Crab Orchard Creek violates the water quality standards for fecal coliform.

IMPAIRMENT SOURCE NPS - Urban

Urban septage disposal is suspected as the source for fecal violations, however more research is necessary to confirm the problems on this stream. This stream was included in the Guest River TMDL segment in 1998.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: Little Toms Creek

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P11R_LTF01A98

SEGMENT SIZE: 4.37 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 4.37

LATITUDE: 36.96722 **LONGTITUDE:** -82.40694

DOWNSTREAM LIMIT:

DESCRIPTION: Toms Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.94250 **LONGTITUDE:** -82.46722

The entire mainstem length of Little Toms Creek is included in the segment. This stream flows north from Banner on Route 58 to the confluence with Toms Creek. Included in the 1998 TMDL for Guest River and tributaries.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Samples taken by TVA in 1996 and 1997 indicate that Guest River and many of its tributaries violate the water quality standards for fecal coliform.

IMPAIRMENT SOURCE NPS - Urban

There are many communities and houses along the stream. The DEQ has helped fund construction of a regional sewage treatment plant, Coeburn Norton Wise STP. This has improved sewage treatment for the three towns however, inflow and infiltration in collector lines has not been completely corrected and there are many small but densely populated communities which do not have public sewer. Elimination of failing septic systems and correction of inflow/infiltration problems are projects that are continuing to be pursued in the watershed.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: Guest River

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P11R_GUE04A96

SEGMENT SIZE: 8.93 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Guest River headwaters

RIVER MILE: 34.75

LATITUDE: 37.05139 **LONGTITUDE:** -82.67278

DOWNSTREAM LIMIT:

DESCRIPTION: Sepulcher Creek confluence

RIVER MILE: 25.82

LATITUDE: 36.97528 **LONGTITUDE:** -82.61722

The headwaters to the Guest River begin on the Flat Gap Quad northwest of Norton on the southern slopes of Indian Mountain. The River flows to the southeast to Sepulcher Creek north of the Town of Norton.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The biological monitoring assessments, 6BGUE006.5, indicate the segment is moderately impaired. Although this data is over 5 years old, there is no later data to change the TMDL listing.

IMPAIRMENT SOURCE Resource Extraction

The source for this is unknown. Land uses in this watershed include forestry and dense populations settled on the banks of the river as well as a prevalent coal mining and coal processing industry within the watershed.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: Sepulcher Creek

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P11R_SEP01A98

SEGMENT SIZE: 2.6 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 2.60

LATITUDE: 37.00000 **LONGTITUDE:** -82.59194

DOWNSTREAM LIMIT:

DESCRIPTION: Guest River confluence

RIVER MILE: 0.00

LATITUDE: 36.97528 **LONGTITUDE:** -82.61722

Sepulcher Creek confluences with Guest River near the community of Addington. Sepulcher Creek flows through the communities of Glamorgan and Stephens along Route 625. This segment was included in the Guest River TMDL segment in 1998.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Samples taken by TVA in 1996 and 1997 indicate that this stream violates the water quality standards for fecal coliform.

IMPAIRMENT SOURCE NPS - Urban

The population is dense along the stream banks so that Urban Nonpoint sources are suspected as the reason for the high fecal coliform counts. Elimination of failing septic systems and correction of inflow/infiltration problems are projects that are continuing to be pursued in the Guest River watershed.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: Guest River

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P11R_GUE03A98

SEGMENT SIZE: 18.72 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Sepulcher Creek confluence

RIVER MILE: 25.82

LATITUDE: 36.97528 **LONGTITUDE:** -82.61722

DOWNSTREAM LIMIT:

DESCRIPTION: Bad Branch confluence

RIVER MILE: 7.10

LATITUDE: 36.91139 **LONGTITUDE:** -82.43611

The segment includes the mainstem of Guest River from its confluence with Sepulcher Creek to the confluence with Bad Branch. This segment flows through the town of Coeburn. The tributaries that were associated with the 1998 TMDL have been listed separately for clarity.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Samples taken by TVA in 1996 and 1997 indicate that Guest River and many of its tributaries violate the water quality standards for fecal coliform. A biological monitoring station on Guest River, 6BGUE006.5 has data older than 5 years which also indicates benthic impairments.

IMPAIRMENT SOURCE NPS - Urban

Guest River is densely settled along streambanks. The DEQ has helped fund construction of a regional sewage treatment plant, Coeburn Norton Wise STP. This has improved sewage treatment for the three towns however, inflow and infiltration in collector lines has not been completely corrected and there are many small communities which do not have public sewer. Elimination of failing septic systems and correction of inflow/infiltration problems are projects that are continuing to be pursued in the watershed.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: Toms Creek

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P11R_TMS01A98, TMS02A00

SEGMENT SIZE: 11.61 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 11.61

LATITUDE: 36.96222 **LONGTITUDE:** -82.36806

DOWNSTREAM LIMIT:

DESCRIPTION: Guest River confluence

RIVER MILE: 0.00

LATITUDE: 36.93667 **LONGTITUDE:** -82.47583

The fecal segment includes the mainstem of Toms Creek from headwaters near Meade Chapel to Guest River confluence in Coeburn. Route 72 and Route 652 follow this stream through the communities of Bondtown and Toms Creek. This segment was included in the 1998 Guest River TMDL.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Samples taken by TVA in 1996 and 1997 indicate that Toms Creek violates the water quality standard for fecal coliform.

IMPAIRMENT SOURCE NPS - Urban

There are many communities and houses along the stream. Although a regional sewage treatment plant, Coeburn Norton Wise STP, has improved sewage treatment for the three towns, inflow and infiltration has not been completely corrected and there are still unsewered communities. Elimination of failing septic systems and correction of inflow/infiltration problems are projects that are continuing to be pursued in the watershed.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: Guest River

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P11R_GUE02A98

SEGMENT SIZE: 3.03 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Bad Branch confluence

RIVER MILE: 7.10

LATITUDE: 36.92500 **LONGTITUDE:** -82.46222

DOWNSTREAM LIMIT:

DESCRIPTION: Crab Orchard Creek confluence

RIVER MILE: 4.07

LATITUDE: 36.91139 **LONGTITUDE:** -82.43611

The segment includes the mainstem of Guest River from its confluence with Bad Branch to the confluence with Crab Orchard Creek. This segment flows through the town of Coeburn. The tributaries that were associated with the 1998 TMDL have been listed separately for clarity.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs, Mercury, Arsenic

Ambient Water Quality Station 6BGUE006.5 has fecal coliform data showing 0 of 13 violations this assessment cycle. Samples taken by TVA in 1996 and 1997 indicated that Guest River and many of its tributaries violate the water quality standards for fecal coliform. This is part of a 1998 TMDL fecal coliform segment. At special station 6BGUE006.45, PCB, Arsenic and Mercury were detected in the fish tissue leading to a Fish Consumption partial support use assessment in 2002.

IMPAIRMENT SOURCE Unknown

Guest River is densely settled along streambanks. The DEQ has helped fund construction of a regional sewage treatment plant, Coeburn Norton Wise STP. This has improved sewage treatment for the three towns however, inflow and infiltration in collector lines has not been completely corrected and there are many small communities which do not have public sewer. Elimination of failing septic systems and correction of inflow/infiltration problems are projects that are continuing to be pursued in the watershed.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: Guest River

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P11R_GUE01A00

SEGMENT SIZE: 4.07 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2002 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Crab Orchard Creek confluence

RIVER MILE: 4.07

LATITUDE: 36.91139 **LONGTITUDE:** -82.43611

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River

RIVER MILE: 0.00

LATITUDE: 36.87639 **LONGTITUDE:** -82.40639

The segment includes the mainstem of Guest River from its confluence with Crab Orchard Creek to its confluence with the Clinch River. This segment flows through the Washington-Jefferson National Forest below the town of Coeburn. The tributaries that were associated with the 1998 TMDL have been listed separately for clarity.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

USGS station shows fecal coliform violations. Phosphorus was above the human health screening values.

IMPAIRMENT SOURCE NPS - Septage

The sources for these exceedences may be land disposal and septage disposal.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Scott

STREAM NAME: Stock Creek

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P13R_STO02A98

SEGMENT SIZE: 0.69 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: Stock Creek Impoundment

RIVER MILE: 5.22

LATITUDE: 36.72722 **LONGTITUDE:** -82.75278

DOWNSTREAM LIMIT:

DESCRIPTION: Biological Monitoring Station

RIVER MILE: 4.53

LATITUDE: 36.71833 **LONGTITUDE:** -82.75000

Stock Creek flows through Mabe and near Sunbright along Route 653 and 871 to the east of Duffield in Scott County. The TMDL segment is between Sunbright and Natural Tunnel State Park off of Route 871. The segment begins downstream of the impoundment near Cyprus Foote and Mineral.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Two biological monitoring station, 6BSTO0004.73, 6BSTO005.26, are moderately impaired in the reach.

IMPAIRMENT SOURCE Resource Extraction

This segment probably receives leachate or runoff from the Cyprus Foote and Mineral mine tailings. It is also groundwater influenced due to the limestone geology in the area and the prevalence of sinkholes.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Scott

STREAM NAME: North Fork Clinch River

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P15R_NFC01C02

SEGMENT SIZE: 5.58 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Fraley Creek confluence

RIVER MILE: 19.09

LATITUDE: 36.63000 **LONGTITUDE:** -82.91306

DOWNSTREAM LIMIT:

DESCRIPTION: Tennessee State Line

RIVER MILE: 13.51

LATITUDE: 36.59361 **LONGTITUDE:** -82.98500

This segment of North Fork Clinch River extends from its confluence with Fraley Creek to the Tennessee State Line. The River flows through the communities of Powers Ford, Fairview and Dona.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

An ambient monitoring station, 6BNCC0-3.80, has fecal coliform violations in 3 of 21 samples. The ambient sediment sample had sediment PCP values above the ER-M.

IMPAIRMENT SOURCE NPS - Agriculture

The source is agriculture.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Lee

STREAM NAME: East Fork Blackwater Creek

HYDROLOGIC UNIT: 06010205

SEGMENT ID.: VAS-P16R_BCE01A00

SEGMENT SIZE: 1.82 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: North Fork Blackwater Creek confluence

RIVER MILE: 1.82

LATITUDE: 36.62833 **LONGTITUDE:** -83.02500

DOWNSTREAM LIMIT:

DESCRIPTION: Blackwater Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.61250 **LONGTITUDE:** -83.04694

This segment of East Fork Blackwater Creek is near Blackwater on Route 70.

CLEAN WATER ACT GOAL AND USE SUPPORT:
Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A biological monitoring station, 6BBCE001.05, has been sampled three time and rated as moderately impaired.

IMPAIRMENT SOURCE NPS - Agriculture, Unknown

The source is unknown, however land uses are agricultural and may contribute to this rating.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: Black Creek and tributaries

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P17R_BLK01A96

SEGMENT SIZE: 4.21 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2002

UPSTREAM LIMIT:

DESCRIPTION: Black Creek impoundment

RIVER MILE: 4.21

LATITUDE: 36.97917 **LONGTITUDE:** -82.68000

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River confluence

RIVER MILE: 0.00

LATITUDE: 36.92778 **LONGTITUDE:** -82.69056

The Black Creek TMDL segment is above Blackwood community, west of the Town of Norton between Black Creek Ridge and White Oak Gap. This segment extends from the lake impoundment to its confluence with Powell River near Route 58/23. The segment length should include tributaries total milage which are not reflected due to NHD deficiencies.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Dr. Donald Cherry from Virginia Tech performed benthic surveys on Black Creek as well as several acid mine seeps along Black Creek as part of a contract study for Division Mined Land Reclamation (DMLR) to characterize this watershed. His report indicates that the benthic community has been decimated due to acid mine drainage.

IMPAIRMENT SOURCE Acid Mine Drainage, Resource Extraction

This watershed is the location of a re-mining project on an abandoned mine land site. The new mining NPDES permit addresses some of the acid mine drainage seeps by specifying better management practices.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: Callahan Creek

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P17R_CAL01A98

SEGMENT SIZE: 1.68 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: Preacher Creek confluence

RIVER MILE: 1.68

LATITUDE: 36.92472 **LONGTITUDE:** -82.79750

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River confluence

RIVER MILE: 0.00

LATITUDE: 36.90528 **LONGTITUDE:** -82.78111

The segment begins at Andover at its confluence with Preacher Creek and follows Route 78 southeast to Appalachia where it meets the Powell River. This was a 1998 segment. Its length has changed based on River Reach file measurements.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Previously there was a biological monitoring station, 6BCAL000.03, on Callahan Creek where the aquatic life use was rated as moderately impaired. There are no data for this station for the 5 year report cycle.

IMPAIRMENT SOURCE Resource Extraction, NPS - Urban

The source for this segment not meeting uses is unknown. In 2000, DCR ranked the watershed high for urban nonpoint source potential pollution and forestry harvest medium for an overall NPS ranking of medium. Coal mining is prevalent in this area, as well, with degradation of aquatic habitat noted by DMLR.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: Powell River

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P17R_POW01A94

SEGMENT SIZE: 2.62 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: Roaring Branch confluence

RIVER MILE: 180.83

LATITUDE: 36.88389 **LONGTITUDE:** -82.78750

DOWNSTREAM LIMIT:

DESCRIPTION: near Dacota Street, Big Stone Gap

RIVER MILE: 178.21

LATITUDE: 36.88389 **LONGTITUDE:** -82.78750

The Powell River segment includes the town of Big Stone Gap from its upstream limits at Roaring Branch confluence to its downstream limits which are near the end of Dakota Street in Big Stone Gap. The segment miles have changed due to NHD data files.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

The Powell River ambient monitoring station, 6BPOW180.78, has violations of the fecal coliform water quality standard (4/36). A biological station at 6BPOW180.72 also shows moderate impairment in this reach.

IMPAIRMENT SOURCE NPS - Urban, Unknown

The segment flows through Big Stone Gap where urban land uses are the suspected source of impairment.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: South Fork Powell River

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P18R_PLL01A98

SEGMENT SIZE: 3.71 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2008 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Butcher Fork confluence

RIVER MILE: 3.71

LATITUDE: 36.85944 **LONGTITUDE:** -82.73139

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River confluence

RIVER MILE: 0.00

LATITUDE: 36.87111 **LONGTITUDE:** -82.74833

This South Fork Powell River segment begins at Butcher Fork confluence just to the south of Big Stone Gap and ends at the confluence with Powell River in Big Stone Gap.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The biological monitoring station at 6BPLL002.55, had a moderately impaired rating in 1996 and not impaired in 1997 and EPA added this segment to the 1998 TMDL list. The assessment for 2002 rates this as threatened.

IMPAIRMENT SOURCE Unknown

The segment flows through south Big Stone Gap where urban land uses are the suspected source of impairment.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Lee

STREAM NAME: Straight Creek

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P20R_SRA01A94

SEGMENT SIZE: 6.66 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2004

UPSTREAM LIMIT:

DESCRIPTION: Straight Creek headwaters

RIVER MILE: 6.66

LATITUDE: 36.84889 **LONGTITUDE:** -83.04139

DOWNSTREAM LIMIT:

DESCRIPTION: North Fork Powell River confluence

RIVER MILE: 0.00

LATITUDE: 36.77694 **LONGTITUDE:** -83.05111

This segment includes the mainstem of Straight Creek from its headwaters north of Monarch to its confluence with North Fork Powell River. This stream flows through St. Charles. The mainstem of Straight Creek was listed on the 1994 TMDL report for fecal coliform violations and 1996 TMDL report for benthic impairment.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

Biological monitoring stations, 6BSTA000.11, 6BSRA000.4, 6BSRA000.54, 6BSRA001.10, 6BSRA002.48, 6BSRA003.62 show that the stream is moderately impaired. The biologist notes that there is embeddedness and the streambank stability is poor. A special study station at 6BSRA001.34 had fish tissue date for PCB which exceeds the human health screening value. The ambient water quality monitoring station, 6BSRA001.11, has fecal coliform violations and Nickle was detected in sediment data.

IMPAIRMENT SOURCE NPS - Urban, Resource Extraction, Unknown

The source of the fecal coliform violations is numerous raw sewerage discharges. The upper reaches are not connected to public sewer. St. Charles STP has had inflow and infiltration problems in this segment also. Coal mining and coal preparation plants in this watershed contribute to benthic impacts. There is acid mine drainage on tributaries to Straight Creek and abandoned mine sites which have adversely impacted aquatic habitat.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Lee

STREAM NAME: Stone Creek

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P20R_STC01A96,S TC02A00

SEGMENT SIZE: 10.08 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters Stone Creek

RIVER MILE: 10.08

LATITUDE: 36.78000 **LONGTITUDE:** -83.12833

DOWNSTREAM LIMIT:

DESCRIPTION: Straight Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.77667 **LONGTITUDE:** -83.05694

Stone Creek is outside of Pennington Gap. This segment begins at the confluence with Ely Creek and ends at its confluence with Straight Creek. This segment was included on the 1996 TMDL list as one of the Straight Creek tributaries. However, after acquisition of more data the segment has been shortened to exclude its headwaters.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring data at 6BSTC000.06, 6BSTC000.27, and 6BSTC003.27 rate this segment as moderately impaired for aquatic life uses.

IMPAIRMENT SOURCE Resource Extraction, Acid Mine Drainage, NPS - Urban

Abandoned Mined Lands may be the major source for the acid mine drainage in the watershed. However, urban land uses also contribute to benthic impacts.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Lee

STREAM NAME: Puckett Creek

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P20R_PCK01A00

SEGMENT SIZE: 5.31 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 5.31

LATITUDE: 36.79944 **LONGTITUDE:** -83.09750

DOWNSTREAM LIMIT:

DESCRIPTION: Straight Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.78139 **LONGTITUDE:** -83.05750

Puckett Creek is a tributary to Straight Creek. It is near St. Charles. The entire length of Puckett Creek is included in this segment. This tributary was included in the 1996 and 1998 TMDL report.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A special study contracted by Virginia Department of Mined Land Reclamation and USCOE indicates the pH in Puckett Creek does not violate water quality standards. The segment is not as impaired as previous information indicated in the 1998 303(d) report. Since one of the tributaries, Lick Branch, has pH violations, the segment is still listed as threatened this cycle.

IMPAIRMENT SOURCE Resource Extraction, Acid Mine Drainage

Abandoned Mined Lands may be the major source for the acid mine drainage in the watershed.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Lee

STREAM NAME: Gin Creek

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P20R_GIN01A00

SEGMENT SIZE: 2.61 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters and tributaries

RIVER MILE: 2.61

LATITUDE: 36.84861 **LONGTITUDE:** -83.06889

DOWNSTREAM LIMIT:

DESCRIPTION: Straight Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.81694 **LONGTITUDE:** -83.04944

Gin Creek is a tributary to Straight Creek and is located above St. Charles in Lee County. The entire reach of the stream is included in this segment. This was part of the Straight Creek segment listed on the 1998 303(d) report.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring station results on Straight Creek, 6BSRA000.40, and best professional judgement lead to inclusion of Gin Creek on the 1996 303(d) report. No other data is available, therefore, the segment will remain on the 303(d) list. DCR ranks this watershed high for the potential for water quality impairment.

IMPAIRMENT SOURCE Resource Extraction, NPS - Urban

Resource Extraction and urban communities along the stream are the probable sources for impairment.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Lee

STREAM NAME: Lick Branch

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P20R_LCK01A00

SEGMENT SIZE: 0.79 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters and tributaries

RIVER MILE: 0.79

LATITUDE: 36.79278 **LONGTITUDE:** -83.08444

DOWNSTREAM LIMIT:

DESCRIPTION: Puckett Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.78917 **LONGTITUDE:** -83.07056

Lick Branch is a tributary to Puckett Creek and is located near St. Charles. The segment includes the entire length of the stream as well as any headwater tributaries. This segment was included in the 1996 TMDL list as part of Straight Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A special study contracted by Virginia Department of Mined Land Reclamation and USCOE verified that pH values are below the lower limit of water quality standards. This segment was included in 1996 and 1998 TMDL lists as part of the Straight Creek segment based on a biological station on Straight Creek and best professional judgement.

IMPAIRMENT SOURCE Resource Extraction, Acid Mine Drainage

Abandoned Mined Lands may be the major source for the acid mine drainage in the watershed.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Lee

STREAM NAME: Baileys Trace

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P20R_BAI01A00

SEGMENT SIZE: 4.55 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters and tributaries

RIVER MILE: 4.55

LATITUDE: 36.82889 **LONGTITUDE:** -83.09333

DOWNSTREAM LIMIT:

DESCRIPTION: Straight Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.80417 **LONGTITUDE:** -83.05639

The entire length of Baileys Trace is included in this segment. The stream is near the community of St. Charles and flows to Straight Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring station results on Straight Creek, 6BSRA000.40, and best professional judgement lead to inclusion of Baileys Trace on the 1996 303(d) report. This station monitoring effort is still the only data available, therefore, the segment will remain on the 303(d) list. DCR ranks this watershed high for the potential for water quality impairment.

IMPAIRMENT SOURCE Resource Extraction, NPS - Urban

Resource Extraction and abandoned mine lands are the suspected sources for impairment. There is also a large number of homes in the watershed which may contribute to the benthic impairments. More data is needed to determine the water quality of this stream.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Lee

STREAM NAME: Ely Creek & tributaries

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P20R_ELC01A00

SEGMENT SIZE: 3.27 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2000 - 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters and tributaries

RIVER MILE: 3.27

LATITUDE: 36.79556 **LONGTITUDE:** -83.10083

DOWNSTREAM LIMIT:

DESCRIPTION: Stone Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.76861 **LONGTITUDE:** -83.10000

Ely Creek is a tributary to Stone Creek, west of Pennington Gap. The segment includes Ely Creek and tributary streams, Bean Creek and Goose Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A special study contracted by Virginia Department of Mined Land Reclamation verified that pH values are below the lower limit of water quality standards and benthics are impaired. Both chemical, physical and biological sampling points verify the impairments.

IMPAIRMENT SOURCE Resource Extraction, Acid Mine Drainage

Acid mine drainage is a problem in this stream. There are abandoned mine works and acid mine seeps. Iron precipitate is visible for most of the length including the Ely Creek confluence with Stone Creek.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Lee

STREAM NAME: North Fork Powell River

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P20R_PWL01A00

SEGMENT SIZE: 6.03 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2000 - 2008

UPSTREAM LIMIT:

DESCRIPTION: Straight Creek confluence

RIVER MILE: 6.03

LATITUDE: 36.77694 **LONGTITUDE:** -83.05111

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River confluence

RIVER MILE: 0.00

LATITUDE: 36.77694 **LONGTITUDE:** -83.05111

The segment includes mainstem of North Fork Powell River from the Straight Creek confluence near the community of Pocket to the confluence with Powell River. The North Fork Powell River flows through the town of Pennington Gap. The stream segment length is 2.31 miles longer than that listed on the 1998 TMDL list.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring stations, 6BPWL005.46 and 6BPWL004.40, were rated moderately impaired in 1998. The biologist noted a high degree of embeddedness, moderate deposition and sub-optimal habitat diversity. In the 2002 assessment more recent benthic data results in a threatened designation. A fish tissue station, 6BPWL001.62, has arsenic in the fish tissue. This segment has been extended to its confluence with Powell River from earlier reports.

IMPAIRMENT SOURCE Unknown

Urban nonpoint source runoff is the suspected cause of habitat impairment. Fecal coliform violations are also attributable to Urban sources. The source for arsenic in fish tissue is unknown. More study needs to be done to determine the sources.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Lee

STREAM NAME: East and West Batie Creek

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P21R_BTW01A98

SEGMENT SIZE: 0.85 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2006 - 2008

UPSTREAM LIMIT:

DESCRIPTION: West Batie Creek spring

RIVER MILE: 0.85

LATITUDE: 36.66750 **LONGTITUDE:** -83.15667

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River confluence

RIVER MILE: 0.00

LATITUDE: 36.65778 **LONGTITUDE:** -83.15222

The segment includes both East Batie Creek and West Batie Creek. The two originate from cave or sinkhole openings and confluence at stream mile 0.7 to become Batie Creek. Batie Creek is also included in the segment to its confluence with Powell River. The headwaters are off of Route 662 in The Cedars section of Lee County, west of Jonesville.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

The creek has been monitored as part of a special study with biological monitoring results indicating that the creek is severely impacted. Dissolved oxygen profiles on this stream also show a violation of stream standards.

IMPAIRMENT SOURCE NPS - Solid Waste

This region of Lee County, known as The Cedars, is a karst area. The source of dissolved oxygen violations is nonpoint related.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Lee

STREAM NAME: Wallen Creek

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P22R_WAL01A00

SEGMENT SIZE: 2.03 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Lone Branch confluence

RIVER MILE: 2.03

LATITUDE: 36.61639 **LONGTITUDE:** -83.17694

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River confluence

RIVER MILE: 0.00

LATITUDE: 36.63361 **LONGTITUDE:** -82.17278

This segment of Wallen Creek runs from the confluence with Lone Branch near Route 612 to the confluence with Powell River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

There is a biological monitoring station, 6BWAL001.57, with inconclusive data. The reports fluctuate between not impaired and moderately impaired.

IMPAIRMENT SOURCE NPS - Agriculture, NPS - Silvaculture

The source is probably forestry and agriculture. DCR recognizes agriculture and forestry as landuses of potential impact in the watershed. More date is needed to determine the water quality in this stream.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Lee

STREAM NAME: Powell River

HYDROLOGIC UNIT: 06010206

SEGMENT ID.: VAS-P23R_POW02A00

SEGMENT SIZE: 8.42 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2006 - 2008

UPSTREAM LIMIT:

DESCRIPTION: Hardy Creek confluence

RIVER MILE: 127.50

LATITUDE: 36.64278 **LONGTITUDE:** -83.24028

DOWNSTREAM LIMIT:

DESCRIPTION: Yellow Creek confluence

RIVER MILE: 119.08

LATITUDE: 36.61611 **LONGTITUDE:** -83.29806

Powell River flows through Lee County. This segment begins at Hardy Creek and ends at Yellow Creek near Route 661 above the Tennessee State Line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A biological monitoring station 6BPOW120.12, show moderate impairment.

IMPAIRMENT SOURCE Unknown

The source for impairment is unknown. The impairment may be agricultural as this is the most prevalent landuse.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Buchanan

STREAM NAME: PawPaw Creek

HYDROLOGIC UNIT: 05070201

SEGMENT ID.: VAS-Q03R_PPW01A94

SEGMENT SIZE: 4.52 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: Kentucky State line

RIVER MILE: 4.52

LATITUDE: 37.42833 **LONGTITUDE:** -82.12417

DOWNSTREAM LIMIT:

DESCRIPTION: Knox Creek confluence

RIVER MILE: 0.00

LATITUDE: 37.44722 **LONGTITUDE:** -82.05833

This segment includes the entire length of PawPaw Creek from the Kentucky State line to its confluence with Knox Creek. It is located along Route 643 north of Grundy.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

PawPaw Creek has been identified as not supporting aquatic life uses based on a RPB2 protocol at station 6APPW000.60 in 1992. It was rated severely impaired overall. There is habitat impairment.

IMPAIRMENT SOURCE Resource Extraction

There are many NPDES dischargers from coal mining in the watershed. It is believed that this may be the source for habitat degradation. More monitoring is necessary to determine if this segment continues to be impaired.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Buchanan

STREAM NAME: Knox Creek

HYDROLOGIC UNIT: 05070201

SEGMENT ID.: VAS-Q03R_KOX01A00,_ KOX02A08

SEGMENT SIZE: 16.94 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 26.11

LATITUDE: 37.33722 **LONGTITUDE:** -81.91389

DOWNSTREAM LIMIT:

DESCRIPTION: Kentucky State Line

RIVER MILE: 9.17

LATITUDE: 37.47111 **LONGTITUDE:** -82.06417

The mainstem of Knox Creek from its headwaters to the Kentucky State line. The stream runs through Hurley and Keels in Buchanan County.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Partially Supporting, Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform, Fish Tissue - PCBs

A benthic station previously sampled indicated this stream is moderately impaired. Because there is no recent sampling data, this stream remains on the TMDL list. In the 2002 assessment, fecal coliform violations at station 6AKOX008.11cause the listing for partially impaired with 3 of 21 samples exceeding standards. There were PCB concentrations in three fish species fish tissue at the same station.

IMPAIRMENT SOURCE Resource Extraction, NPS - Urban, Unknown

Coal mining extraction in this watershed, as well as densely populated urban use and activities, have contributed to the degraded habitat.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Buchanan

STREAM NAME: Levisa Fork River

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q04R_LEV01B02

SEGMENT SIZE: 9.85 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters Levisa Fork River

RIVER MILE: 165.79

LATITUDE: 37.20090 **LONGTITUDE:** -81.89500

DOWNSTREAM LIMIT:

DESCRIPTION: Garden Creek confluence

RIVER MILE: 155.94

LATITUDE: 37.21250 **LONGTITUDE:** -82.00639

This segment extends from the headwaters of Levisa Fork River in Buchanan County to its confluence with Garden Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

PCB was detected in two samples of one species of fish at fish tissue station 6ALEV151.26.

IMPAIRMENT SOURCE Unknown

The source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Buchanan

STREAM NAME: Levisa Fork River

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q04R_LEV01A94

SEGMENT SIZE: 3.96 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2008 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Garden Creek confluence with Levisa

RIVER MILE: 155.94

LATITUDE: 37.21250 **LONGTITUDE:** -82.00639

DOWNSTREAM LIMIT:

DESCRIPTION: Dismal Creek confluence with Levisa

RIVER MILE: 151.98

LATITUDE: 37.23333 **LONGTITUDE:** -82.04417

The segment is delineated by the major streams which join Levisa River. The confluence with Garden Creek marks the upstream boundary of the segment and downstream confluence with Dismal Creek marks the end of the segment.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fish Tissue - PCBs

The biological monitoring station, 6ALEV151.90, has not been sampled in over 5 years. However, there is no other data to suggest the situation has changed since this segment was listed. Benthic data indicates the habitat is poor due to stream embeddedness, lack of canopy and poor bank stability. Of the four sampling efforts in this segment, three were rated moderately impaired and one, December 1991, was rated severely impaired. It is recommended that monitoring should be undertaken to verify impairment. PCB was detected at a fish tissue station 6ALEV151.26.

IMPAIRMENT SOURCE Resource Extraction, NPS - Urban, Unknown

The source is due to coal mining activities and riparian zone modification. Riparian zone modification is a result of urban uses within the stream corridor.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Buchanan

STREAM NAME: Garden Creek

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q04R_GAR01A98

SEGMENT SIZE: 1.82 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2004 - 2006

UPSTREAM LIMIT:

DESCRIPTION: Right Fork confluence

RIVER MILE: 1.82

LATITUDE: 37.18889 **LONGTITUDE:** -82.00444

DOWNSTREAM LIMIT:

DESCRIPTION: Levisa Fork River confluence

RIVER MILE: 0.00

LATITUDE: 37.21222 **LONGTITUDE:** -82.00639

This includes a segment of Garden Creek from its confluence with Right Fork to the confluence with Levisa Fork River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform, General Standard (Benthic)

Fecal Coliform violations at 6AGAR000.16 are the reason this segment does not support swimmable uses 8 of 23 samples violated. Recent biological assessments indicate that there is an improvement in the severity of benthic impairment so that the segment is rated partially supporting aquatic life this cycle. The last three assessments have been moderately impaired at station 6AGAR000.16. Arsenic was found in fish tissue at 6AGAR001.78.

IMPAIRMENT SOURCE NPS - Urban, Habitat Alteration

Land uses in the watershed, resource extraction and dense population settlement along the stream, contribute to these violations.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Buchanan

STREAM NAME: Levisa Fork River

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q06R_LEV01A98

SEGMENT SIZE: 8.08 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Dismal Creek confluence

RIVER MILE: 151.84

LATITUDE: 37.23333 **LONGTITUDE:** -82.04389

DOWNSTREAM LIMIT:

DESCRIPTION: Slate Creek confluence

RIVER MILE: 143.76

LATITUDE: 37.27833 **LONGTITUDE:** -82.10111

This segment of Levisa Fork River includes the mainstem from its confluence with Dismal Creek on Route 460 to confluence with Slate Creek in Grundy.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fish Tissue - PCBs

The sediment analysis at ambient water quality monitoring station 6ALEV143.86 has effect range - median (ER-M) value exceedences for nickel. These exceedences are the cause of the threatened status for the mainstem. 6ALEV143.80 is a biological monitoring station in this reach with moderate impairment ratings. PCB was detected in the fish tissue of 3 species at station 6ALEV145.86 and in one species at 6ALEV151.26.

IMPAIRMENT SOURCE Unknown

Metal sources are unknown. However, resource extraction of coal is the predominant land use in this watershed. Nickel may be due to either urban nonpoint sources or resource extraction. More research is recommended to identify a source for both nickel and PCB.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Buchanan

STREAM NAME: Slate Creek

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q07R_SAT01A00

SEGMENT SIZE: 9.08 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2008 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Upper Rock House Branch confluence

RIVER MILE: 9.08

LATITUDE: 37.31861 **LONGTITUDE:** -81.93250

DOWNSTREAM LIMIT:

DESCRIPTION: Levisa Fork confluence

RIVER MILE: 0.00

LATITUDE: 37.27861 **LONGTITUDE:** -82.10083

This stream lies parallel with Route 83 and is delineated by its upstream confluence with Upper Rock House Branch, downstream to the mouth of the stream at Levisa Fork River. This segment is longer because of extension of upper limit from special study in 1998.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fecal Coliform

Special Study biological monitoring stations, 6ASAT000.00, 6ASAT000.05, 6ASAT004.52, and 6ASAT007.71 were all moderately impaired in June 1998. Thus the segment has been extended from Elkins Branch upstream to Upper Rock House Branch. An ambient station, 6ASAT000.03, fecal coliform data shows violations 4 of 24.

IMPAIRMENT SOURCE NPS - Urban, NPS - Urban

The area has been mined for coal and the housing situation is typically dense on the floodplain. Abrupt elevation changes from narrow floodways to steep mountains is typical in the watershed. This increases urban impacts to the stream.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Buchanan

STREAM NAME: Levisa Fork River

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q08R_LEV02A00

SEGMENT SIZE: 9.34 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: River Mile 142.00

RIVER MILE: 142.00

LATITUDE: 37.29028 **LONGTITUDE:** -82.12639

DOWNSTREAM LIMIT:

DESCRIPTION: Rocklick Creek confluence

RIVER MILE: 132.66

LATITUDE: 37.35528 **LONGTITUDE:** -82.18972

The Fish Consumption segment is 12 miles long. It extends from Grundy, just upstream of confluence with Six and Twenty Mile Creek downstream to Rocklick Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

PCB in Fish Tissue at a special monitoring station, 6ALEV130.00, is the cause of impairment. This sample was in 1997.

IMPAIRMENT SOURCE Unknown

The source of PCB contamination is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Buchanan

STREAM NAME: Levisa Fork River

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q08R_LEV01A00

SEGMENT SIZE: 2.66 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2008 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Rocklick Creek confluence

RIVER MILE: 132.66

LATITUDE: 37.35528 **LONGTITUDE:** -82.18972

DOWNSTREAM LIMIT:

DESCRIPTION: Kentucky State line

RIVER MILE: 130.00

LATITUDE: 37.36361 **LONGTITUDE:** -82.21750

This segment begins at the confluence with Rocklick Creek near Route 645, northeast of Weller and ends at the state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), VDH Fish Consumption (PCB)

A biological station, 6ALEV130.29 is moderately impaired. This segment has been extended. Virginia Department of Health has posted a twelve miles segment for fish consumption due to PCB in fish tissue at stations 6ALEV134.82 and 6ALEV130.00. The fish consumption segment extends to an adjacent segment.

IMPAIRMENT SOURCE Resource Extraction, Unknown

Resource extraction, high population density and urban activities are probably sources of these concerns. The PCB source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Buchanan

STREAM NAME: Bull Creek & Tributaries

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q08R_BLC01A98

SEGMENT SIZE: 16.87 - Miles

INITIAL LISTING: 1998 **TMDL Schedule** 2006 - 2008

UPSTREAM LIMIT:

DESCRIPTION: Bull Creek headwaters

RIVER MILE: 5.38

LATITUDE: 37.29222 **LONGTITUDE:** -82.21889

DOWNSTREAM LIMIT:

DESCRIPTION: Levisa Fork River confluence

RIVER MILE: 0.00

LATITUDE: 37.31250 **LONGTITUDE:** -82.16639

The segment of Bull Creek includes its entire length and all tributaries; Belcher Branch, Deel Fork, Burnt Poplar Fork, Big Branch, Starr Branch, Jess Fork, and Convict Hollow. Bull Creek confluences with Levisa Fork River. Bull Creek is 5.38 miles long. The remainder of the 16.9 mile segment extends to include the tributaries to Bull Creek based on the new NHD data.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The biological monitoring station, 6ABLC002.3, sample results yield a severe impaired rating. The biologist noted that land use in this watershed was mining and forest. He also observed and noted trash was in the stream.

IMPAIRMENT SOURCE Resource Extraction

Land uses indicate that resource extraction is the source of impairment.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Dickenson

STREAM NAME: Russell Prater Creek

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q12R_RPC01A96

SEGMENT SIZE: 11.27 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2008 - 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters at Poplar Gap

RIVER MILE: 11.27

LATITUDE: 37.24278 **LONGTITUDE:** -82.15694

DOWNSTREAM LIMIT:

DESCRIPTION: Russell Fork confluence

RIVER MILE: 0.00

LATITUDE: 37.20417 **LONGTITUDE:** -82.29194

Russell Prater mainstem is located along Route 83 east of Haysi and includes the length of the creek from its headwaters near Poplar Gap to its mouth at the confluence with Russell Fork.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The segment is designated due to a biological monitoring station, 6ARPC000.80 and 6ARPC000.52. There were two samples taken in the last 5 year cycle, one sample taken in 1999, that indicated moderate impairment. The biologist observed coal mining activity and habitat degradation.

IMPAIRMENT SOURCE Resource Extraction

The source of impairment is resource extraction. There is significant coal mining land use in this watershed which may have resulted in aquatic habitat impacts.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Dickenson

STREAM NAME: Russell Fork River

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q12R_RSS03A02

SEGMENT SIZE: 3.79 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: McClure River confluence

RIVER MILE: 25.43

LATITUDE: 37.20500 **LONGTITUDE:** -82.29528

DOWNSTREAM LIMIT:

DESCRIPTION: Pound River confluence

RIVER MILE: 21.64

LATITUDE: 37.24278 **LONGTITUDE:** -82.32000

This segment on Russell Fork River is defined by its confluence with McClure River to the Pound River confluence. This segment is downstream of the Town of Haysi.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

There is a special study station, 6ARSS025.55, with fish tissue PCB exceedences of the human health screening values in four fish species.

IMPAIRMENT SOURCE Unknown

The source of PCB is unknown. A study should be conducted to determine the extent and source of this contaminant.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Buchanan

STREAM NAME: Donald Branch

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q13R_PNS02A02

SEGMENT SIZE: 2 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 2.00

LATITUDE: 37.04778 **LONGTITUDE:** -82.72083

DOWNSTREAM LIMIT:

DESCRIPTION: South Fork Pound River confluence

RIVER MILE: 0.00

LATITUDE: 37.06306 **LONGTITUDE:** -82.69806

This segment includes Donald Branch which is a headwater stream to South Fork Pound River. It begins in the mountain and confluences with Phillips Creek to form South Fork Pound River. Route 627 follows Phillips Creek to its origins just to the south of Flat Gap west of Pound, Virginia.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

There is a biological station at 6APNS008.73 with data that rates the headwaters as severely impaired.

IMPAIRMENT SOURCE Resource Extraction

The source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Buchanan

STREAM NAME: Phillips Creek

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q13R_PNS02A02

SEGMENT SIZE: 2 - Miles

INITIAL LISTING: 2002 **TMDL Schedule** 2010 - 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 2.00

LATITUDE: 37.03583 **LONGTITUDE:** -82.70944

DOWNSTREAM LIMIT:

DESCRIPTION: South Fork Pound River confluence

RIVER MILE: 0.00

LATITUDE: 37.06306 **LONGTITUDE:** -82.69806

This segment includes Phillips Creek which is a headwater stream to South Fork Pound River. It begins in the mountain and confluences with Donald Branch to form South Fork Pound River. Route 627 follows Phillips Creek to its origins just to the south of Flat Gap west of Pound, Virginia.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

There is a biological station at 6APNS008.73 with data that rates the headwaters as severely impaired.

IMPAIRMENT SOURCE Resource Extraction

The source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: South Fork Pound River

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q13R_PNS01A94

SEGMENT SIZE: 4.31 - Miles

INITIAL LISTING: 1994 **TMDL Schedule** 2006 - 2008

UPSTREAM LIMIT:

DESCRIPTION: Glady Fork confluence

RIVER MILE: 4.31

LATITUDE: 37.09000 **LONGTITUDE:** -82.63306

DOWNSTREAM LIMIT:

DESCRIPTION: Pound River confluence

RIVER MILE: 0.00

LATITUDE: 37.12306 **LONGTITUDE:** -82.61306

The mainstem of the River from its confluence with Glady Fork downstream to the confluence with the Pound River. This segment includes a portion of the town of Pound.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring station, 6APNS000.40, data ranks this site moderately impaired or severely impaired for six visits. Five most recent sample efforts 1997, 1998 and 1999 were rated moderately impaired. Low density of organisms is cited as the reason for severe impairment which put it on the 1994 TMDL list. However, the 2002 cycle assessment lists this as partially supporting the aquatic life use.

IMPAIRMENT SOURCE Resource Extraction, NPS - Urban

The main land use in this watershed is coal mining. However, some urban impacts may contribute to the problems.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: TENNESSEE/BIG SANDY RIVER BASIN

CITY/COUNTY: Wise

STREAM NAME: North Fork Pound River

HYDROLOGIC UNIT: 05070202

SEGMENT ID.: VAS-Q13R_PNK01A96

SEGMENT SIZE: 1.11 - Miles

INITIAL LISTING: 1996 **TMDL Schedule** 2006 - 2008

UPSTREAM LIMIT:

DESCRIPTION: North Fork Pound Lake impoundment

RIVER MILE: 1.11

LATITUDE: 37.12556 **LONGTITUDE:** -82.62972

DOWNSTREAM LIMIT:

DESCRIPTION: Pound River confluence

RIVER MILE: 0.00

LATITUDE: 37.12306 **LONGTITUDE:** -82.61306

The North Fork Pound River mainstem from downstream of the North Fork Pound Lake impoundment to the confluence with Pound River are included in this segment. The North Fork and South Fork of Pound River confluence to form the Pound River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring results, 6APNK000.08, indicate that the stream is moderately impaired. These results include a low EPT index and moderate taxa richness scores.

IMPAIRMENT SOURCE NPS - Urban

The source of impairment is urban. However, a secondary source may be habitat degradation due to the lake discharge being withdrawn from the bottom lake layer. DCR ranked the watershed medium for urban impairment potential.